ABSTRACT

A polyelectrolyte solution as a disperse phase is fed into one of the chambers which are partitioned by a plate having a plurality of narrow holes (microchannels), a continuous phase is fed into the other chamber, and pressure is applied to the disperse phase so as to prepare an emulsion. This emulsion is demulsified, and the disperse phase is brought into contact with a polyelectrolyte solution having a reverse electric charge to the disperse phase or a polyvalent ion solution, and a gel layer is formed around the spherical disperse phase by a polyelectrolyte reaction. Finally, a double-structured capsule is obtained, in which the outside is insoluble gel and the inside is a polyelectrolyte solution to which a cell has been added.

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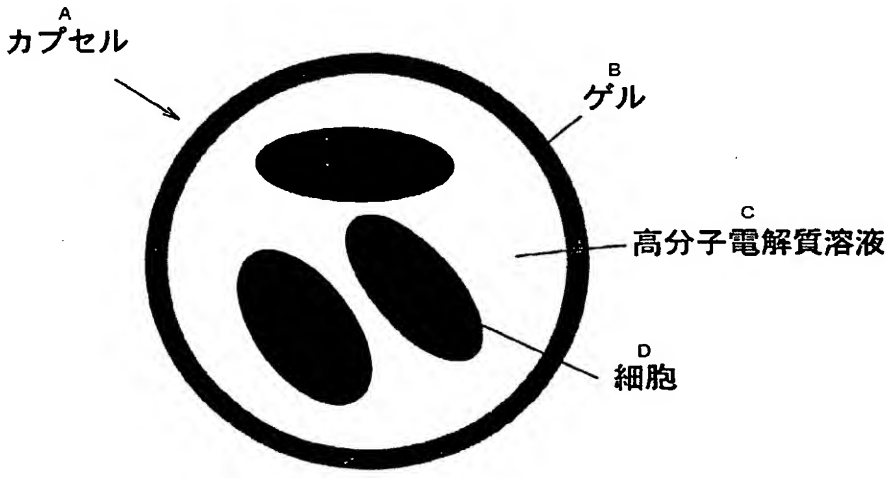
(54) Title: PROCESS FOR PRODUCING MICROCAPSULE

(54) 発明の名称: マイクロカプセルの製造方法



A...CAPSULE
B...GEL
C...POLYELECTROLYTE SOLUTION
D...CELL

(57) Abstract: A polyelectrolyte solution is supplied as a dispersed phase to one of chambers separated by a plate having many fine holes (microchannels) and a continuous phase is supplied to the other chamber. A pressure is applied to the dispersed phase to prepare an emulsion. This emulsion is demulsified, and the dispersed phase is brought into contact with a polyelectrolyte solution or polyvalent-ion solution which has been charged oppositely to the dispersed phase. A gel is thus formed on the periphery of the spherical dispersed phase by a reaction of the polyelectrolyte. Thus, capsules of a two-layer structure are obtained in which the shell is an insoluble gel and the inner part is a polyelectrolyte solution containing cells, etc.

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